DOCUMENT RESUME

ED 367 944 CS 011 621

AUTHOR Cardone, Janine Lord
TITLE A Study of the Relationship between Basal Illustrations and Contextual Meaning.
PUB DATE Apr 94
NOTE 56p.; M.A. Thesis, Kean College of New Jersey.
PUB TYPE Dissertations/Theses - Masters Theses (042) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Basal Reading; Comparative Analysis; Content Analysis; *Context Clues; Grade 1; *Illustrations; Primary Education; Reading Research
IDENTIFIERS Text Design

ABSTRACT

A study determined the relationship between basal illustrations and contextual meaning. Five basals were analyzed to determine the percentage of illustration miscues appearing in each story. The basals chosen were from Silver Burdett and Ginn, Houghton Mifflin, Scott Foresman, Holt Rinehart and Winston, and D.C. Heath and Company. Results indicated that D.C. Heath and Company and Silver Burdett and Ginn had the highest percentage of pictorial miscues. Findings suggest that illustrations found in first-grade basals do not always relate to context. (Two tables of data and descriptions of basals with noted miscues are included. (Contains 29 references.) (Author/RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 367 944

A Study of the Relationship Between Basal Illustrations and Contextual Meaning

By

Janine Lord Cardone

Presented in partial fulfillment of the requirements

for the Masters of Arts Degree

Kean College of New Jersey

April 1994

Accepted
(date) March 29, 1994
(Advisor's signature)

CS011621

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Cardone

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

Table of Contents

Page

I. Abstract.....ii

II. Acknowledgement.....iii

III. A Study of the Relationship Between Basal Illustration and Contextual Meaning

Introduction.....1

Hypothesis.....4

Procedures.....5

Results.....5

Conclusions.....8

IV. Related Research: Basal Illustration and Contextual Meaning 12

V. References.....31

VI . Appendix.....34

BEST COPY AVAILABLE

Abstract

This study was conducted to determine the relationship between basal illustrations and contextual meaning.

Five basals were analyzed to determine the percentage of illustration miscues appearing in each story. The basals chosen for this study include: Silver Burdett & Ginn, Houghton Mifflin, Scott, Foresman, Holt Rinehart & Winston and D.C. Heath and Company.

The final results determined that illustrations found in first-grade basals do not always relate to context.

Acknowledgement

I wish to dedicate this thesis to my husband Anthony, whose love and support has guided me throughout this project.

Illustrated texts are a ubiquitous part of beginning reading materials. The first documented use of illustrations in children's books is credited to Comenius, in his "Orbis Pictus", circa. 1650, (Concannon 1975) "The New England Primer," published in 1792 also included illustrations, albeit the beginning stages compared to what is evident today. The current literature based readers contain authentic pictures from actual children's literature books. The quality of the illustrations has changed dramatically throughout the years. But the question remains,

Does all this artwork help in the business of learning to read?

Do the pictures relate consistently to text, or aid in word recognition and comprehension? The research relating to the effectiveness of basal illustrations is varied (Legenza and Knafle 1978).

The fact that children have been taught to read for years in primers containing illustrations is undisputed. Surprisingly, relatively little research is done to measure the effectiveness of the illustrations found in basal readers (Peeck 1978). Opinions among researchers and educators regarding the value of illustrations in

children's beginning readers range from those who believe illustrations play an integral role in reading instruction (Whipple 1953) to those who believe they serve no useful purpose (Willows 1978). Publishers most certainly are aware that beautifully decorated covers and story illustrations are strong selling points (Legenza and Knafle 1978). But how much time is actually spent deciding what illustrations are placed on each page? Most would agree that illustrations should offer cues to contextual meaning. Beginning readers rely on pictures to assist them in their acquisition of meaning, but they are often offered miscues instead. Illustrations should aid in word recognition and comprehension, but the research does not always substantiate these statements (Legenza and Knafle 1978).

One of earliest studies on this topic was done by Miller in 1938. He studied the role of illustrations as an aid in comprehension and concluded that the absence of pictures had little correlation to comprehension (Concannon 1975).

Two other researchers agreed with these results; Vernon in 1954 and Weintraub in 1960 as identified in the work of Legenza and Knafle (1978). However, three researchers, Matz and Rohwer in 1971 and Denburg 1976-77, have

found pictures to be an aid in comprehension. Regardless of the results, none of these researchers have recommended that pictures be removed from books entirely.

It is generally agreed that illustrations are a source of motivation and interest in reading and represent a very important resource to beginning readers. Pictures may be used as clues when a reader cannot read a word in context. However, pictures may instead provide the reader with miscues and distract them from the objective of attending to the printed words according to Samuels (1967). Sophisticated readers rely on their knowledge of language while reading and look sparingly at theinformation provided by the illustrations according to Dalfen Denburg (1976). Beginning readers are held back because of their unfamiliarity with print. Pictures were introduced not to supplement print, but to add an additional source of information from which the reader can draw. Willows (1978) points out that with many beginning basal readers allowing more space for artwork than printed text it must be a primary goal to ensure quality illustrations that will aid in the readers acquisition of contextual meaning.

Educators and publishers of basal texts may need to reevaluate their criteria for selecting illustrations for use in these types of materials, since pictorial content

BEST COPY AVAILABLE

should become a primary factor in textbook selection according to Concannon (1975). This item needs to become as much of a priority as validity of content, vocabulary, complexity of sentences, and interest level. Since beginning readers rely on illustrations to bring meaning and understanding to print, it is important to reveal and study the extent to which illustrations fulfill that objective.

Hypothesis

To provide additional evidence on this topic a study was conducted to determine the relationship between basal illustrations and contextual meaning. It was hypothesized that illustrations found in first-grade basal texts do not always relate to context.

Procedures

The researcher utilized 5 first-grade basal readers. The texts chosen for the study include: "Make A Wish", Silver Burdett & Ginn (1991), "Outside My Window", Scott, Foresman (1987), "A Place For Me", Holt, Rinehart and Winston (1986), "Moving On", D.C. Heath and Company (1983), and "Sunshine", Houghton Mifflen (1983). Each story was carefully read and compared with every illustration in the selected basal readers to determine

BEST COPY AVAILABLE

whether the illustrations were related or unrelated to context. Unrelated illustrations were recorded and analyzied to determine the types of miscues they gave the reader. The basal readers were then compared to reveal the series which had the highest percentage of unrelated illustrations as well as the least.

Results

Table 1 illustrates the data collected when comparing the results of the 5 basals readers. It can be seen that D.C. Heath provides the most pages in first grade basal while Scott, Foresman provides the least. The data indicated that D.C. Heath and Company and Silver Burdett & Ginn had the highest percentage of pictorial miscues with 15.4% and 15%, respectively. Houghton Mifflin had the third highest percentage with 9% miscués. The two basals with the fewest miscues were Scott, Foresman with 6.7% and Holt, Rinehart & Winston with 5.7%.

Table 1

Miscue Analysis of Basal Readers

	SB&G	HM	SF	HR&W	DCH
Pages in basal	193	187	179	158	195
Pages with miscues	29	17	12	9	30
% of miscues	15%	9%	6.7%	5.7%	15.4%

Abbreviations: SB&G - Silver Burdett & Ginn,
HM - Houghton Mifflin,
SF - Scott, Foresman,
HR&W - Holt, Rinehart & Winston,
DCH - D.C. Heath and Company

The table also reveals a correlation between the total number of pages in the basal and the percentage of miscues. D.C. Heath & Company had the greatest number of pages (195) and the highest percentage of miscues (15.4). Silver Burdett & Ginn had the second greatest number of pages (193) and the second highest percentage of miscues (15%). Houghton Mifflin had the third greatest number of

pages (187) and the third highest percentage of miscues (9%). The two basals with the fewest pages, Scott, Foresman (179) and Holt, Rinehart & Winston (158) had the least number of miscues with 6.7% and 5.7%

The analysis of Table 2 reveals that D.C. Heath and Company contained by far the greatest number of individual stories (28), 19 provided miscues for the reader but 9 stories had no miscues at all. Silver Burdett & Ginn contained the second greatest number of stories (16), 13 of which provided miscues leaving only 3 stories devoid of miscues. Scott, Foresman had the third greatest number of stories (18), 8 provided miscues, while 10 stories contained no miscues at all. Houghton Mifflin contained 12 stories, 7 provided miscues, while 5 stories were without miscues. The basal with the fewest stories was Holt Rinehart & Winston (11). This basal contained 6 stories with miscues and 5 stories without miscues.

Table 2

Analysis of Basal Stories Related to Miscues

	SB&G	HM	SF	HR&W	DCH
Stories in basal	16	12	18	11	28

Stories with miscues	13	7	8	6	19
Stories without miscues	3	5	10	5	9

The two tables reveal that miscues are evident in all 5 basals. Although miscues appear to be a common occurrence in basal stories, certain publishers provide more miscues than others on a first-grade reading level. Silver Burdett & Ginn had 15% of their illustrations providing miscues and contained only 3 stories with all the pictures related to context. Although, D.C. Heath and Company also had a high percentage of illustration miscues (15.4%) they provided 9 stories in which all the pictures related to context. The three remaining basals contained considerably less miscues overall by offering the reader illustrations which more accurately depicted the context. Although illustration miscues are a ubiquitous part of first-grade basals, the tables expose a significant difference between the percentage of miscues and the 5 basal publishers used in this study.

Conclusions

The results of this study support the hypothesis that illustrations found in first-grade basal texts do not

always relate to context. Two of the five basals, Silver Burdett & Ginn and D.C. Heath and Company had the highest percentage of illustration miscues. A further examination into the format of these two basals lends itself to some possible explanations.

Silver Burdett & Ginn is a literature based basal. It provides the readers with classic children's literature that has been adapted for use in a basal. The vocabulary in the stories is diverse and does not follow a controlled list of new words as do other basal texts. The illustrations are often taken directly out of the text and placed into the basal. The page format is sometimes different from what is reproduced in the basal and lends itself to illustration miscues. Also, due to the lack of a controlled vocabulary it is far more difficult to match the picture exactly with the context.

D.C. Heath and Company had an illustration miscue of 15.4%. This basal series, unlike Silver Burdett & Ginn utilizes a controlled vocabulary. All the new words are presented to the students prior to reading and reiterated throughout the story. The remaining words should be part of each students sight vocabulary and therefore the illustrations might not be as integral as they are in a literature based basal. D.C. Heath and Company also provided the most stories per basal (28), in which 9

stories had all pictures related to context.

The last three basals used in the study were Houghton Mifflin, Scott,Foresman, and Holt Rinehart and Winston. All of these basals provide a controlled vocabulary. While it appears easier to write a story utilizing those new words and relating illustrations to the context, it could also be true that a better control by its editors/authors of artists illustrations was possible. That is, artists provided material for the stories as specified by the authors. The percentages prove that controlled vocabulary basals offer less illustration miscues: Houghton Mifflin (9%), Scott,Foresman (6.7%), and Holt Rinehart and Winston (5.7%). Although these percentages are lower than the percentages found in Silver Burdett & Ginn and D.C. Heath and Company the fact remains that illustration miscues are a part of all five basals used in this study.

The results of this study clearly support the hypothesis that illustrations found in first-grade basals do not always relate to context. The significance of illustration miscues and readers is not as clear. The related research is divided between those who feel illustration miscues greatly influence readers and those who feel the miscues are of little consequence. Additional

studies need to be completed in order to better determine the effect illustration miscues have on first-grade readers.

Related Research:

Basal Illustaration and Contextual Meaning

There have been studies done to measure the relationship between basal illustrations and contextual meaning. The findings of these studies, however, have been inconsistent and often contradictory.

The Effect of Pictures on Comprehension

One of the earliest studies was conducted by Miller (1938), who researched the relation of pictures as an aid in comprehension. He wanted to determine whether children who read from a primer with illustrations had greater comprehension of the material read than did students who read the same material without illustrations. About one hundred children in first grade participated in the study and were divided into two groups: the "picture group" and the "non-picture group." Both groups were required to read three stories, either with or without pictures, depending on their classification. After reading the stories the children completed comprehension tasks. The results showed that the children who read without pictures understood what they read as well as the children who read the same material with the use of pictures. Miller concluded that the use of illustrations

may not be necessary in order to aid comprehension in a basal reader.

Two studies were completed by Vernon (1953,1954) to determine the effect of illustrations on recall and comprehension. In 1953, he completed a study which sought to discover the children most affected by pictorial material. It was discovered that beginning readers paid greater attention to pictures than the more sophisticated readers. It was also revealed that children reading materials with illustrations comprehended no better than children reading with non-illustrated materials.

In 1954, Vernon's study supported his 1953 conclusions regarding pictorial illustrations and how they relate to comprehension. Several texts were used to examine the relation of pictures to the child's knowledge and comprehension. After completing various comprehension tasks and questions it was determined that pictorial illustrations produced only minor additions to the information provided in the texts. These additions were not decisive enough to affect comprehension substantially.

Peeck (1978) completed a study involving the retention of content material with illustrated and non-illustrated texts. Seventy-one fourth graders read an adapted

version of a "Rupert Bear" story. The experimental group read the version with illustrations and the control group read the non-illustrated story. During retention testing (immediately, a day after, or a week after) the experimental group produced higher scores than the control group. Especially on questions covering exclusively pictorial content and on questions dealing with information uniformly presented by both text and illustrations.

Another study was conducted to determine the influence of pictures on children's comprehension and retention of reading material. Rusted and Coltheart (1979) decided that since books of young children almost always contain illustrations more research was needed to validate their presence. Their question was to reveal if children are using pictures as an alternative to the written words rather than in addition to them. The experiment was designed to examine the effect of pictures of both new words and the retention of factual information.

The results showed that good and poor readers did not differ significantly in the amount of information retained. The researchers concluded that pictures increased retention of passages of good and poor readers,

although there were differences in the pattern of retention displayed by the two groups. It was realized that good readers used the pictures to facilitate retention of the passage as a whole, because good readers showed equal retention for picture and non-picture features. However, the increased retention by poor readers was caused mainly as a result of recall of picture features. This led Rusted and Coltheart to determine that the poor readers may have been attempting to supplement recall of passages with recall of pictures.

The Effect of Pictures on Attitudes

An experiment was conducted by Whipple (1953) to determine standards by which educators could rate the interest appeal of illustrated material. It focuses on only one area - interest value and the type of illustrations that children enjoy most. It was determined that it would be very detrimental to believe that all illustrations make a lively appeal to children.

To determine the narrative interest value, an analysis was completed to review the characteristics of the selections frequently chosen and of those chosen rarely or not at all. These items include (1) the number of illustrations in a selection, (2) the size of the pic-

ture, (3) the number of colors used in a picture, (4) the presence or absence of a center of interest, (5) the type of action depicted, and (6) the theme or subject matter of the illustration. An analysis of the illustrations in 292 selections were then studied relating to each of these items. This studied indicated that illustration interest and appeal could be ranked according to specific standards listed below:

1. The proportion of the picture should have a definite center of interest. It should not be supported by too many details.
2. The more interesting the action being depicted is the more appealing it is to children.
3. A colored illustration has more appeal than black and white.
4. The larger the illustration the greater the interest level.
5. The greater the number of illustrations, the higher the interest level. This standard is true up to the point of saturation where the selection becomes a picture book.
6. An illustration which depicts a theme relating to human interest, supernatural events, or exciting adventure has greater merit than an illustration on an uneventful topic.

Twenty years later Samuels, Biesbrock, and Terry (1974) did a study on
the effect of pictures on children's attitudes toward presented stories.
Fifty-four second graders from three classrooms read stories under threedifferent picture conditions. The stories contained either color pictures, outline of a picture, or no-picture conditions. Students were tested on consecutive days pertaining to their attitude on what was read. The results showed that second graders preferred illustrated stories to non-illustrated stories. Also, stories with color illustrations were preferred to outline sketches. These results verify Whipple's study pertaining to color preference and add that any illustration was preferred to a story with no illustration.

The Effect of Illustrations Found in Basal Readers

The basal is a commonly used reader found in many classrooms. Gourley (1978) examined the language and pictures found within these "easy readers" and discovered some unsettling information. Sighting the Merrill Linguistic Reading Program (1975), it was realized that they commonly use definite articles with nouns whose referents have not been previously mentioned or implied. Another

frequently used practice that may impede some beginning readers is the use of pictures to establish a specific referents. This practice was found in The Holt Basic Reading System (1977) as well as Scott, Foresman Reading Systems (1971). Gourley's point regarding definite articles is that beginning readers are being forced to focus on the pictures but not always the text. This might be confusing to a student trying to get meaning from text when a referent is introduced only in pictures.

Two other researchers took Gourley's study a step farther. Legenza and Knafle (1978) examined how effective pictures are in basal readers. They developed a formula for assessing the language stimulation value of pictures. First they classified pictures into three categories: those that stimulate a large amount of language (high potency pictures), a relatively moderate amount of language (medium potency pictures), and a relatively small amount of language (low potency pictures). Eight different reading series were analyzed on a first grade level. The average number of pictures studied for each first grade series was eleven. The results revealed that the majority of pictures (60-100%) from all first grade series were of low potency and only Ginn had high potency pictures (7%). Legenza and Knafle

concluded that the eight basal readers do not have pictures of maximum effectiveness, in regards to stimulating language development and publishers should reexamine their objectives for selecting pictures. (The eight basal readers studied were Scott, Foresman, Open Highways, Ginn, Harcourt-Brace-Jovanovich, Houghton-Mofflin, Holt, Lyons-Carnahan, and Lippincott).

Simons and Elster (1990) examined the picture dependence found in first grade basal texts. They wanted to study different basal series to determine what texts are the most picture dependent. The four series they analyzed were: Ginn (1982), Scott Foresman (1983), Lippincott (1982), and Open Court (1985). The results revealed that Scott Foresman contained by far the most words, pages, and references. Total picture dependence ranged from a low of 5.1% in Open Court to a high of 21.9% in Ginn. Ginn and Scott Foresman (the two meaning-emphasis basals, are more then twice as picture dependent as Lippincott (sound-symbol approach) and Open Court (literature plus phonics approach). The researchers discovered that the bulk of picture dependence in the reading series occurs at the beginning of the year and drops off considerably in the last two thirds of the year. Additional research will be needed to reveal how picture dependence in beginning basals relates to reading

achievement.

The Effects of Pictures on Learning to Read Words

Samuels (1967) wanted to determine the effects of pictures on learning to read words. He conducted a laboratory and a classroom study. The results of the laboratory study revealed that significantly more correct responses were given by the group to which a picture was presented. The classroom analysis indicated that there was no difference in learning among the picture and no-picture group pertaining to better readers. However, among poorer readers, the group using the no-picture condition scored and learned significantly more words.

The findings that pictures interfered with the learning of poorer readers, but not better students, is closely related to a study done by Silverman, Davids, and Andrews (1963) and by Baker and Madell (1965). They found that when distracting stimuli were present, the performance of poorer readers suffered greater disruption than did the performance of better readers.

Singer, Samuels, and Spiroff (1973-1974) studied the

effect of presenting 4 printed words in 4 different ways on the acquisition of reading responses of 164 first and second graders. The word was either presented alone, with a picture, embedded in a sentence, or in a combination of sentence plus a picture. The study tried to resolve the conflict between Samuels' focal attention theory and Goodman's belief that presenting a word in context facilitates children in identifying words. The focal attention theory states that picture and context cues deter acquisition of reading responses because they allow the student to identify the word without focusing on its graphic features. The results of the study revealed that students scored best on word alone, next on word plus picture, third on word plus sentence, and worst on word plus sentence and picture. The researchers concluded that this study provides additional support for Samuels' theory.

Contrary to the above mentioned studies, Arlin, Scott, and Webster (1978-1979) tested the focal attention hypothesis that pictures interfere with sight-word learning. Students were presented with either words plus pictures, words plus voice, or words in isolation. Opposite to the predictions of the focal attention hypothesis, pictures presented with words helped rather then hindered word acquisition. The researchers con-

cluded that the distracting effect of pictures are unwarranted.

In a similar study Montare, Elman, and Cohen (1976) conducted two experiments designed to duplicate Samuels' 1967 study. Students from grades one and three were tested with a range of picture or no-picture word association tasks. The results of their study revealed that in first and third grade there were no significant differences in the acquisition of reading responses to printed words between students that have learned with pictures present and those that have learned without the aid of pictures.

In order to investigate the role of pictures in learning to read, a study was conducted to compare the information available to the beginning reader with the skills utilized by the proficient reader (Dalfen Denburg 1977). Skilled readers depend primarily on knowledge of language and its constraints. They sample sparingly from the text. The beginning reader is held back tremendously due to limited familiarity with print. The role of pictures was not to replace print, but to provide an additional source of information from which the beginning reader can draw upon if needed. Dalfen Denburg tested 48 children all in the last months of first grade.

The study examined the effects of increasing amounts of pictorial information on the word identification and word learning of the students. The results showed that increasing the amount of available information through the use of pictures had a facilitative effect on word learning.

This research concurs with an earlier study done by King and Muehl (1965) which examined the role of pictures as cues in beginning reading. Their subjects consisted of 210 kindergarten students. They were separated into groups according to the cues they would receive. These included: picture, auditory, picture and auditory, auditory and echoic response, and picture and auditory and echoic response cues.

The results of this study revealed that for the beginning reader it is likely that many words look alike. The students scored consistently higher when the printed word was presented with a picture. Therefore, providing additional cues may help the visual and auditory discrimination, which is necessary during the process of reading.

Levin, Divine-Dawkins, Kerst, and Guttmann (1974) completed a study examining the individual differences in

learning from pictures and words. They developed an instrument for determining what "learner types" benefited from what approach. Their goal was to identify the fifty-four

fourth graders as (1) subjects who performed relatively well on both pictures and words, (2) subjects who performed relatively poorly on both pictures and words, (c) subjects who performed relatively well on pictures but relatively poorly on words; and (d) subjects who performed relatively poorly on pictures but relatively well on words. The subjects were given reading tasks to complete which placed them into one of the categories and repeated classifications of elementary school students were found to be consistent. This allowed the researchers to identify those children for whom self-generated or actual visual imagery would be beneficial and those for whom pictures or visual imagery is detrimental.

Willows (1978) analyzed the role of pictures as distractors in reading. In his study he examined the presence of pictures in regards to children's speed and accuracy of reading. The procedure involved the children reading sets of words under three conditions: with no pictures, with related pictures, and with unrelated pic-

tures. The test was designed for second and third graders and the location of the picture varied (behind versus above the word). The results yielded the following results: (a) students read the words more slowly when pictures were present, (b) unrelated pictures caused more confusion than related pictures, (c) The nature of both of these effects was inversely related to reading ability. Willows determined that children either unconsciously or automatically attempt to use the pictures as clues to unlocking the meaning of print. He noted that pictures are sometimes superfluous and children hoping to get assistance decoding a word may well be misled by those aspects of the picture that are not related to the word.

The Effect of Pictures and Children's Learning from Oral Prose

Lesgold, Shimron, Levin, and Guttman (1975) conducted a study to examine the effects of pictures and young children's learning from oral prose. First grade children heard prose selections after which they illustrated various scenes with plastic cutouts. The control group copied or colored geometric forms during the illustration period. After listening to three or four passages, subjects orally recalled information and answered factual

questions about each passage. The results proved that illustration facilitated prose learning only when the correct pieces were given to the child or the illustration was completed for him. When children selected the cutout pieces for each illustration out of many pieces, illustration activity had either negative or no effect.

Another study that will now be examined refers to pictures and their role in children's prose recall. The experiment was conducted by Ruch and Levin (1979). The researchers wanted to determine why it seemed that visual imagery failed to facilitate young children's prose recall. As part of the experiment, children were given stimuli presumed to elicit visual imagery (partial pictures) during the presentation of the story as well as at the time questions were asked about the story. Another aspect of the experiment involved explicit verbal reminders of the previously seen pictures both during and after the story. The results of the study revealed that young children do not appear to benefit from partial pictures unless the pictures are reinstated at the time of testing. Also, it was noted that with young children especially, pictorial materials are more effective elicitors of visual imagery in comparison to verbal materials. The researchers decided that the present interpretation of the imagery-provoking character of partial pictures is

an arguable one. Another conclusion was that young children do not benefit from simple imagery formation instructions. Second, neither do young children benefit from imagery-provoking partial pictures. Imagery proved helpful only when the pictures were reinstated as retrieval cues just prior to testing or providing partial pictures during testing only. Providing retrieval cues that do not enable children to remember their original images are not sufficient to enhance young children's prose recall.

Another study designed to measure how pictures enhance a child's short-term and long-term memory was completed by Purkel and Bornstein (1980). They wanted to extend the available research and assess the value of pictures as additions to prose learning. They questioned whether images derived from partial pictures or taken from imagery instructions alone would increase recall equally and as well as complete pictures. Forty-eight second graders participated in the study. The children were randomly assigned to one of three groups. Some were placed in a complete picture group, where each sentence was accompanied by a picture that showed totally the event and the object in the story. Others were placed in a partial-picture group, where the target object was left out in a natural way from the same picture. They were told to look at the picture as each

sentence was read and to imagine the object. The third group was placed in a no-picture group and simply listened to the sentences as they were read. The study revealed percentages of correctly recalled target objects. Immediate recall showed 90.0 for the complete picture group, 87.5 for the partial-picture group, and 72.5 for the no-picture group. One day later the results were 58.8 for the complete picture group, 50.6 for the partial-picture, and 35.6 for the no-picture. The researchers concluded that object recall was equally increased if pictures of the objects accompanied the reading or if the children imagined the objects. Recall decreased the day after regardless of the group situation.

Finally, research was conducted by Levie and Lentz (1982) to review the information available regarding illustrations in textbooks. These authors reviewed the results of 55 experiments comparing learning from illustrated text with learning from text alone. They developed guidelines and research conclusions based on the available information. (1) In normal situations, the addition of illustrations will not increase of learning of information in the text. (2) When illustrations provide text-redundant information, learning information in the text that is also shown in pictures will be facili-

tated. (3) The presence of text-redundant illustrations will neither facilitate nor hinder the learning of information the text that is not illustrated. (4) Illustrations can help learners understand what they read and remember. (5) Illustrations can sometimes be used as effective substitutes for words. (6) Learners may fail to make use of illustrations unless taught to do so. (7) Illustrations usually enhance learner enjoyment. (8) Poor readers use illustrations more extensively. (9) Learner-generated imagery are generally less helpful than provided illustrations.

In summary, the research on the illustrations found in beginning readers and its effectiveness is quite contradictory. Continued research is necessary to further examine the functions illustrations perform and to identify the ways in which illustrations should be developed and used in each basal.

Bibliography

Arlin, Marshall, Scott, Mary and Webster, Janet. The effects of pictures on rate of learning sight words: a critique of the focal attention hypothesis. Reading Research Quarterly, No. 4, 1978-1979.

Concannon, Josephine S. Illustrations in books for children: review of research. The Reading Teacher, December 1975, 254-256.

Dalfen-Denburg, Susan. The interaction of picture and print in reading instruction (abstracted report). Reading Research Quarterly, No. 2, 1976-1977, 176-188.

Gourley, Judith W. The basal is easy to read- or is it? The Reading Teacher, November 1978, 174-182.

King, Ethel M. and Siegmar Muehl. Different sensory cues as aids in beginning reading. The Reading Teacher, December 1965, 163-168.

Legenza, Alice and June D. Knafle. How effective are pictures in basal readers? The Reading Teacher, November 1978, 170-173.

Lesgold, Alan M., Shimron, Joseph, Levin, Joel R., and Guttman, Joseph. Pictures and young children's learning from oral prose. Journal of Educational Research, Vol. 67, 1975, No., 5, 636-642.

Levie, Howard W. and Richard Lentz. Research. Educational, Communication and Technology Journal, Winter 1982.

Levin, Joel R., Divine-Hawkins, P., Kerst, Stephen, and Guttman, Joseph. Visual differences in learning from pictures and words. Journal of Educational Psychology, Vol. 70, 296-303.

Miller William A. Reading with and without pictures. The Elementary School Journal, May 1938.

Montare, Alberto, Elman, Elaine, and Cohen, Joanne. Words and pictures: A test of Samuel's Findings. Journal of Reading Behavior, Vol. IX, 3.

Peeck, J. Retention of content of a text with illustrations. Journal of Educational Psychology, 1978, Vol. 70, No. 5, 878-887.

Purkel, Warren and Bornstein, Marc H. Pictures and imagery both enhance children's short-term and long-term recall. Journal of Developmental Psychology, 1980, Vol. 16, No. 2, 153-154.

Ruch, Michael D. and Levin, Joel R. Partial pictures as imagery-retrieval cues in young children's prose recall. Journal of Experimental Child Psychology, 1979, Vol. 28, 268-279.

Rusted, Jennifer and Coltheart, Veronika. The effect of pictures on retention of novel words and prose passages. Journal of Experimental Child Psychology, 1979, Vol. 28, 516-524.

Samuels, Jay S. Attentional process in reading: the effect of pictures on the acquisition of reading responses. Journal of Educational Psychology, 1967, Vol. 58, No. 6, 334-355.

Samuels, Jay S. Effects of pictures on learning to read, comprehension and attitude. Review of Educational Research, Vol. 40, No.3, 397-407.

Samuels, Jay S., Biesbrock, Ediean and Terry, Pamela R. The effect of pictures on children's attitudes toward presented stories. Journal of Educational Research, Vol. 67, No. 6, February 1974, 243-246.

Simons, Harry and Elster, C. Picture dependence in first-grade basal texts. Journal of Educational Research, 84, 86-92.

Singer, Harry, Samuels, Jay S. and Spiroff, Jean. The effect of pictures and contextual conditions an learning responses to printed words. Reading Research Quarterly, No. 4, 1973-1974.

Whipple, Gertrude. Appraisal of interest appeal of illustrations. The Elementary School Journal. January, 1953.

Willows, Dale M. Individual differences in distraction by pictures in a reading situation. Journal of Educational Psychology, 1978, Vol. 70, No. 5, 837-847.

Willows, Dale M. A picture is not always worth a thousand words: Pictures as distractors in reading. Journal of Educational Psychology, 1978, Vol. 70, No. 2, 255-263

Vernon, M.D. The value of pictorial illustrations. British Journal of Educational Psychology, 1953, 23, 180-187.

Vernon, M.D. The instruction of children by pictorial illustrations. British Journal of Educational Psychology, 1954, 24, 171-179.

Appendix A

Basals with Noted Miscues

Make A Wish Silver Burdett & Ginn, 1991

1. "A Morning in Fall"- All illustrations relate to context.
2. "Who Took the Farmer's Hat"- All illustrations relate to context with the exception of the continual reference to wind in which none of the illustrations reflect a windy day.
3. "A Rainbow for Sara"- Most illustrations relate to the stories general theme. Page 37's illustration does not relate to context and provides definite miscues. The text reads "In the morning, Sara's mom asked, "Where is all your string?" "Come with me," said Sara. She got her dad, and Peter and Anna, too. The illustration reveals a building with a mother and child playing, a nurse, a man in a wheelchair, and another woman entering the building.
4. "How to Help Make a Bird's Nest- All illustrations relate to context.
5. "Polar Bear Leaps"-The illustration on page 47 shows a cub sliding down a hill. The text reads, "It is time for

Polar Bear to come out of the den where he was born." The illustration on page 48 reveals a polar bear standing on the ice with his mother in the background. The text reads "As his mother eats, Polar Bear runs off. The small bear stands up on his back legs to look out over the ice. Then, the ice breaks!" On page 49 the illustration shows polar bear laying down on the ice while the text says "he sees his mother and calls out to her for help."

6. "The Three Little Pigs"- (photographed play) This story is an adapted version of the original story. The story begins on page 57 and has no illustration. The preceding pages illustration introduce the characters and are not useful to the reader. The illustrations are not helpful to the reader due to the fact that the children-made costumes and actions are difficult to interpret.

7. "A World of Animals"- most of the illustrations relate to context. Page 69 of the text states " You can find animals in the water", however the illustration does not show any animals in the water.

8. "The Hare and the Tortoise"- (adapted Aesop Fable) On pages 76 and 77 the illustrations show tortoise and hare walking together, text reads, "Will you walk with me, Hare?" said Tortoise. "Oh, no!" said Hare. "Rabbits don't walk. Rabbits run as fast as the wind." Page 81

provides additional pictorial miscues. Illustration reveals hare waking up from his nap and looking at tortoise jogging in front of him. Text states,
"When Hare woke up he looked for Tortoise. Tortoise was not in back of him. Hare did not see Tortoise at all."
9. "Mercy, Percy"- The illustrations on pages 86-87 do not relate to context. The text reads "Parsnips," said Percy, drumming on the table. "I want parsnips. I want to eat parsnips." The pictures show a small boy animal coloring and talking to his mother. Again, on pages 88-89 the dialogue continues about wanting to eat parsnips but the illustration shows the boy looking bored with his mother cooking and his grandpa carrying in wood.
10. "I Want to Be Big, Now"- The illustrations on pages 105-106 do not relate to context. They show children playing baseball, while younger children look on and talk. The text reads "I want to be big NOW!" "I know how to help you," said Jeff. "Come with me to my house." The illustration on page 107 reveals a boy putting away food, but the text says "But I want to be big NOW! said June.
11. "The Wishing Well"- The first three illustrations (pages 114-116) show a mouse standing by a well but the text all three times states "She threw a penny into the well."
12. "The Story Game"- On page 127 the illustration shows

a teacher holding a plant with 5 children in a room with no windows. The text states, "It's raining out! We can't go outside. Why don't you all play a game?"

13. "Hippo Makes a Wish"- all illustrations relate to context except for pages 130 and 131. The text reads "I was on my way to get some peaches and I heard a yell from Jimmy's house." The illustration shows the boy watching a dinosaur and three people flying out of the door.

14. "Fix-It"- The illustration on page 163 reveals a mother and father bear talking with a baby bear crying in the mother's robe. The text reads, "Emma's father tried. But he couldn't fix it, either. So he called the fix-it man. "Please hurry," he said. "It's an emergency!" The illustration on page 165 shows the fix-it man in the t.v., the mother bear singing with the cat while the baby bear cries. Part of the text on that page reads, "Her father pretended to be a horse- but Emma didn't feel like riding.

15. "Melissa's Friend Kim"-The illustration on page 175 shows three people (mother, father, and daughter) about to eat breakfast, but the text reads, "Kim can't have this for breakfast,"said Melissa. "She can't?" said Mom. "What can Kim have for breakfast?" The reference made to Kim is unclear. The illustrations on pages 176 and 177 show a father and daughter eating breakfast with a mother standing by the refrigerator. The text reads, "She has

ice cream," said Melissa. "Ice cream for breakfast?" said Mom.

16. "Me and My Flying Machine"- On page 183 the text refers to finding things in an old barn but the illustration shows a boy with wood and a hammer. Page 185 again refers to a barn but illustration show the boy dreaming. The illustration on page 186 shows a boy flying in a hand-made flying machine but the text reads, "There were so many things I could do. I'd deliver mail to Eskimos and people who never get mail." Part of the text on page 187 states "Birds could rest on the wings, if they were tired from flying all day. From high in my flying machine I could see everything. So I'd always know where everything was and I'd never get lost." The illustration reveals no birds or being able to see everything. The illustration on page 190 shows the boy daydreaming but the text reads, "I couldn't wait to finish my flying machine. The next day I ran all the way to the old barn.

Sunshine Houghton Mifflin, 1983

1. "Pig Jumps"- Pages 8 and 9 of the text reads, "Now look Pig. Look at me jump." Illustrations do not show any frog jumping.

2. "The Big Sale"- On page 18 there is a reference made to a lunch box that does not appear in the illustration.

On page 20 of the text there is a for sale" sign illustrated for the first time. The sale had been referred to on page 19 with no pictorial clue. The last miscue in this story appears on page 21 where another references is made to a lunch box that does not appear in the illustration.

3. "The Little Red Hen"- All illustrations relate to context.

4. "Things That Grow"- All illustrations relate to context.

5. "Jenny's Important Things"- All illustrations relate to context.

6. "The Big Turnip"- All illustrations relate to context.

7. "Lucy Didn't Listen"- On page 80 the illustration reveals a girl cutting a piece of paper with scissors. The text reads, "Lucy liked school. She liked to read. She liked to play games. And she like to do school work." The text mentions nothing about cutting paper.

8. "Can a Mouse Really Help?"- All illustrations relate to context.

9. "Abu Ali and the Coat"- On page 120 the illustration shows two men greeting each other outside of a house. The text reads, "I'll have some turnip." Abu Ali took some turnip. "What good turnip," he said.

10. "Ira Sleeps Over"- The illustration on page 134 shows Ira walking happily. The text states, "It was my sister

who thought of it. She said, "Are you taking your teddy bear?" The picture does not show his sister or his teddy bear. The illustration on page 135 shows Ira and his sister talking, with another reference made to the teddy bear. The illustration on page 137 shows Ira sitting in a chair thinking. The text states, "Should I take him?" "Take him," said my mother. "Take him," said my father. "But Reggie will Laugh," I said. The last miscue in this story appears on page 142 when Ira is again engaged in a dialogue with his family, but the illustration only shows Ira standing alone.

11. "Asha's School"- The illustration on page 158 reveals an African family sitting outside their house. The text reads, "Asha and Layla played school every day. Layla was the teacher all the time." The illustration on page 162 shows a beautiful outdoor market with many people shopping. The dialogue does not match the picture where it states, "The little girl looked very sad. Asha went over to her and said, "Hello, what is your name?" The last pictorial miscue appears on page 163 where the illustration still reveals an outdoor market but the text says, "Jambo," said Mama to the little girl. "Jambo!" shouted the little girl. Now she didn't look so sad.

12. "Buzzy Bear and the Rainbow"- The illustration on page 174 reveals two bears looking outside at another bear. The text is confusing because itreads, "Yes," said

the bird. "I hear there is gold at the end of a rainbow."

Outside My Window Scott, Foresman, 1987

1. "A Game for Kim"- All illustrations relate to context.
2. "A Good Home"- The illustration on page 16 reveals four frogs laughing at a squirrel. The squirrel is walking away from the frogs. The text is confusing because it reads, Furry said, "I will look for a home. I do not want a big home. I will not pick a noisy home. I want a good home for a squirrel like me." The text on page 20 states, "This is not good," Furry said. "Get down! Go! This is a good home for a squirrel. You are not a squirrel. Such a noisy animal can't share my tree." The illustration provides a miscue because it shows the squirrel looking at an alarm clock being thrown from the tree and Furry chasing after it. The illustration on page 21 shows a snail among five trees, yet the text has a dialogue between Furry the squirrel and Ginger the bird. It reads, "It is not yours," said Ginger. This is my home. I can do what I wish.
3. "Do Not Take This Tree"- The illustration on page 27 provides a miscue. It shows Ginger and Furry running but the text reads, "Ginger was mad. She looked at her home."

4. "Come See My Home"- The illustration on page 34 provides a miscue for the reader. It shows a close-up picture of a girl sitting by a window. The text reads, "My home is not like your home. From my bed, I do not see trees. From my bed, I see water. The water and the lighthouse are noisy."

5. "The Three Little Pigs"- On page 41 of the text the illustration shows four pigs sitting comfortably and content in their home. The dialogue does not match, it states, "The three little pigs wanted to leave home."

6. "Bob Has To Leave"- All illustrations relate to context.

7. "Good Day, Spider"- All illustrations relate to context.

8. "Under the Flowering Tree"- On pages 72 and 73 of the text a musical recorder is mentioned twice, yet the illustrations reveal a boy sitting under a tree daydreaming and walking into a country store. Neither one of the pictures would help the reader with the music theme.

9. "The Little Tree"- All the illustrations relate to context.

10. "Being With Dad"- On page of the text the illustration shows a boy doing his homework with his parents watching him. The dialogue is confusing because it involves discussion about the city. "I don't like the city!" said Peter. "Why not, Pete?" his dad asked. The

text does not match with the text. Page 93 is opposite 92 and contains no

illustrations. The reader is left with only the homework picture as a guide. The dialogue continues with "And I don't get to be with you. You go to work right when I get home, so I don't get to see you." The page ends with the following, "You'll see," Pete's dad said. He smiled. Then he put on his jacket and left.

11. "Boating"- All the illustrations relate to context.

12. "The Wind and the Sky"- All the illustrations relate to context.

13. "Up in the Sky"- All the illustrations relate to context.

14. "A Secret in the Ground"- All illustrations relate to context.

15. "Where Is My Bear?"- The illustration on page 137 provides a miscue for the reader. The text reads, "Mom I can't find the purple bear you gave me," I called. "Where do you keep him, Son?" my mom asked. The illustration shows a boy and his dog sitting on the floor of a bedroom. It does not give any indication that the boy is talking to his mom.

16. "A Box for Mrs. Lee"- The illustration on page 147 provides a miscue for the reader. The text reads, "I have a secret in this box. I have to keep the box shut

so no one sees." The illustration simply provides pictures of all the children who will be in this play.

17. "Rob's Big Secret"- All illustrations relate to context.

18. "The Princess and the Pea"- All illustrations relate to context.

A Place For Me Holt, Rinehart and Winston, 1986

1. "Teddy's Window"- All illustrations relate to context.

2. "Not Yet, Clarita"- All illustrations relate to context.

3. "The Grumpiest Man"- On page 39 of the text there is a reference made to "daddy". The illustration shows a girl looking at earmuffs.

4. "The Small Lot"- On page 50 there is a reference made to a "man" and a "woman." These people are supposedly looking at a lot, but the illustration shows two boys playing on the lot instead.

5. "A Good Place to Play"- All illustrations relate to context.

6. "A Place For Fred"- The illustration on page 72 shows a frog looking at a fire hydrant and a cab. The text reads, "Look at the people," he said. "I was right." The illustration does not any people at all.

7. "Amy"- On pages 90 and 91 there are initial references

made to "puppies". These references could be confusing to the reader because the illustrations show a girl sitting at a table with a boy talking to her.

8. "Too Much Noise"- On pages 104 and 105 there are initial references to "too much noise". These references could be confusing to the reader because the illustrations show a man sleeping peacefully in bed. On page 107 there is an initial reference made to a "cow" that does not appear in the illustration. Page 109 has an initial reference to a "burro" that does not appear in the illustration. The last miscue appears on page 111 where there is a initial reference made to a "dog" that is not present in the illustration.

9. "Maybe a Monster"- On page 120 of the text there is an initial reference made to a "monster" that does not appear in the illustration.

10. "The Flower Kitten"- All illustrations relate to context.

11. "Save My Place"- All illustrations relate to context.

Moving On D.C. Heath and Company, 1983

1. "Show and Tell"- All illustrations relate to context.

2. "A Trip to a Farm"- On page 23 of the text the

illustration shows a boy talking to a farmer. This may be confusing to a beginning reader because the texts reads, "Ben and Mom and Dad went to the farm. The first one they saw was Eric. He was setting out a net over long rows."

3. "Helping is Fun"- All illustrations relate to context.

4. "The Birds"- All illustrations relate to context.

5. "A Home for Birds"- All illustrations relate to context.

6. "Rita and the Ring"- On page 54 of the text there is an initial reference made to "dad" who does not appear in the illustration. On page 55 of the text the illustration shows two children folding and putting things into a drawer. The text reads, "I know," said Rita. "But I looked in the bike zone, and it was not there."

7. "Mice Are Nice"- All illustrations relate to context.

8. "Who Did It"- On page 64 of the text the illustration shows a girl sitting a couch and a boy looking at her. The text may be confusing because it reads, "It was raining hard, so Susan and Henry were inside." The illustration does not provide any clues for a rainy day.

9. "Kites That Talk"- On page 73 of the text it reads, "Jane wanted to help Grandfather. She didn't want him to give up his shop. She didn't want him to be sad." The illustration shows a girl and her grandfather happily flying kites outside.

10. "Roger and Big Red"- The illustration on page 77 shows a woman walking

with seven children following her. The text reads, "Some of the boys and girls were on their way to get a pet." The illustration does give any clue they are on their way to get a pet.

11. "A Day with Miss Ellie"- On pages 84 and 85 the text does not match the illustration. The text is filled with dialogue between Tina and her mother, and Miss Ellie and Tina but the illustration simply shows a school on one page and a girl feeding fish on the other.

12. "A Cake for Class Day"- All illustrations relate to context.

13. "The Smart Fox"- The illustrations on pages 100 and 101 show a man with a box and a forest with a fox jumping in the other. Both pages are filled with dialogue between the dog and the fox. This would be confusing because even though the background of the first picture has a small dog and fox, you would not believe they were talking to each other.

14. "Lita's Plan"- The illustration and text on page 107 are totally unrelated. The illustration shows a farmer moving hay with sheep in the background. The text reads, "Lita started to look over the place. She was a good scout. She walked to the pool. There she saw some bees

in a tree."

15. "Books Are Better"- All illustrations relate to context.

16. "Things That Move"- On page 117 the illustration and the text are totally unmatched. The illustration shows a paper flower, crayons, scissors, and tacks. The text reads, "Do you know how to make a dog run? Can you make a fox skip or a flower bend? Do you think you can make a cow hop?" On page 121 of the same story the illustration shows a paper boy, dog, and house. The text says, "You can make up a play, if you want. Why not do it with some boys and girls in the class? Make it funny or sad."

17. "The Best Fish Around"- On page 122 the text may be confusing to the reader because the illustration is serene and tranquil (sunrise on a farm), while the dialogue is a mother telling her son they must cook a hen and chop down a tree. On page 124 of the same story Max, the tree is talking to the boy, but the illustration shows only the boy with a big fish in his hands.

18. "Fun With Paint"- On pages 132 and 133 there are initial references made to children talking to each other but the illustrations shows a watercolor painting of a house, trees, and sun.

19. "A Wish for a Fish"- On page 135 there is an initial reference made to "Carla" but the only people in the illustration are a boy and a man. On page 138 of the

text the illustration shows three people fishing in a boat. The text reads something unrelated: "Max looked up at the bright stars. "Star light, star bright, first star I see tonight," he said. The last miscue appears on page 140 where the reader sees only a fish net, but the text reads, "Dad had his arms around Max to keep him in the boat. All of them were getting wet, as the big fish twisted and tugged."

20. "Hunk of Junk"- There is a miscue on page 144 because the illustration shows two children pouring water into a pool with a toy sailboat in it. The text is confusing because it reads, "It won't cost a thing," said Margo. "But first we have to find some wood. Then we need some string."

21. "The Sad Clown"- On page 145 there is an initial reference to a clown with spots not shown in the illustration. Also, on page 147 there is another initial reference made to a red and yellow string on a stick that is not shown in the illustration.

22. "The Glass Bottle"- On page 153, the text refers to a boy wishing and changes happening: "Bill saw the little glass bottle move. Then he had on a good red shirt. "It works!" said Bill, tapping the little glass bottle three times. I wish for good blue pants in place of my torn ones." The illustration might be misleading because it shows holding a bottle but looking rather disappointed,

certainly not as if wonderful things are happening.

23. "Their Game"- All illustrations relate to context.

24. "What Luck!"- All illustrations relate to context.

25. "Think Cool"- On page 170 the illustration shows two people talking

inside an ice cream shop, but the dialogue is confusing. The store owner is saying he wants to have some toast and jam and invites the girl to join him. The girl declines because it is too hot. There is no clue to prepare the reader for "toast and jam."

26. "Still the Same"- The illustration and the text appearing on page 182 is totally unrelated. The illustration reveals a girl sleeping on a couch, while the text is very lenghty, involving a trip to the beach, sitting around a stove with Grandma and Grandpa, and relaxing in a lighthouse because it is raining outside.

27. "Circus Cats"- On page 186 there are initial references made to what cats like to eat. The illustration simply shows three circus tigers with no clue as to what they like to eat.

28. "The Song"- On page 190 there is an initial reference made to "bright colored hats" that are not represented in the illustration. Also, on page 190 there are references made to "Max and Henry" that are not shown in the illustration. The illustration on page 190

actually shows a girl cutting out paper flowers and stars. There is another miscue on page 191 where the illustration shows a boy with his father in the background and two small children sitting on the ground. The text has the boy singing a song in school yet the illustration has nothing to do with that action. "This party is fine. This party is fun. It's one for all, And all for one."